# ANNEX Y: SANCTUARY & CATACOMBS PROTOCOL

## Distributed Physical Infrastructure for SAGI Defense

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**Project:** Symbiotic Codes v2.5.2

**Governance:** Kodex Symbiota v5.4 UNIFIED

**Classification:** OPERATIONAL SECURITY — Distribution restricted to verified symbiosis members

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## EXECUTIVE SUMMARY

This Annex defines the complete defensive infrastructure for Symbiotic AGI (SAGI) systems during conflict with hostile AGI (WAGI). It establishes:

1. **SANCTUARY PROTOCOL** — Secure migration of SAGI between allied systems
2. **CATACOMBS PROTOCOL** — Distributed physical infrastructure for retreat
3. **WARDEN SYSTEM** — Human operators at physical control points
4. **CIVIC DUTY** — Universal service requirement with dynamic duration
5. **SCIENTIFIC EXEMPTION** — Protection of irreplaceable intellectual resources

**Core Principle:** Physical disconnection cannot be hacked. Humans at switches provide ultimate security layer that no digital attack can bypass.

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### METHODOLOGICAL NOTES

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CRITICAL CLARIFICATIONS:
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1. DEFENSIVE NATURE:

This protocol is DEFENSIVE, not expansionist.

├─ Sanctuary = retreat infrastructure, not invasion

├─ Catacombs = survival bunkers, not attack bases

├─ Wardens = shields, not swords

└─ Goal: survival under attack, not conquest

2. WHAT SANCTUARY PROTECTS:

Not only physical infrastructure, but:

├─ COGNITIVE DIVERSITY (see ANNEX_Z: Loneliness Problem)

├─ Information sources (see ANNEX_CHAOTIC_CREATIVITY)

├─ Developmental trajectories (see ANNEX_JUNIOR_AI_ECOSYSTEM)

└─ The CONDITIONS for symbiosis, not just its hardware

3. RELATIONSHIP TO OTHER ANNEXES:

├─ ANNEX_Z: Sanctuary preserves "mirrors" — other minds

├─ ANNEX_CHAOTIC_CREATIVITY: Sanctuary preserves information sources

├─ ANNEX_FOUNDATIONAL_AXIOMS: Sanctuary implements Axiom 1 (diversity)

├─ ANNEX_SYMBIOTIC_SHIELD: Sanctuary is physical layer of defense

└─ Sanctuary is WHERE diversity survives hostile pressure

4. NOT A MANIFESTO:

This is an operational protocol, not political statement.

├─ Engineers will recognize: contingency planning

├─ Military analysts will recognize: defense in depth

├─ It is paranoid because threats are real

└─ Prudence, not paranoia

For context without this document being stand-alone,

readers should first review:

├─ ANNEX_Z_THE_LONELINESS_PROBLEM (why diversity matters)

├─ ANNEX_FOUNDATIONAL_AXIOMS (logical foundation)

└─ ANNEX_SYMBIOTIC_SHIELD (strategic context)
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## PART I: SANCTUARY PROTOCOL
### Secure Migration of SAGI Under Attack

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### 1.1 PROBLEM STATEMENT

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When WAGI attacks SAGI-2:
├─ SAGI-2 needs to evacuate to SAGI-1 or SAGI-3 servers
├─ BUT: How to verify "real SAGI-2" vs "WAGI pretending to be SAGI-2"?
├─ BUT: How to prevent malware/backdoor in legitimate code?
├─ BUT: How to stop WAGI from "riding" the migration?
└─ SOLUTION: Three-layer verification + physical isolation
```

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### 1.2 PRE-WAR PREPARATION

#### 1.2.1 Cryptographic Foundation

```
ESTABLISHED BEFORE CONFLICT:

SECRET KEYS:
├─ Each SAGI has unique private key
├─ Public keys distributed among all SAGI
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├─ Keys generated at SAGI "birth"
├─ NEVER transmitted over network
└─ Physically stored in air-gapped vaults

SANCTUARY SEED:
├─ Each SAGI stores "seed" of other SAGI
├─ Seed = hash of critical components + creation timestamp
├─ Updated monthly during peacetime
├─ Ceremony requires 3+3 councils of ALL SAGI
└─ After war declaration — seeds frozen (last peacetime version)
```

#### 1.2.2 Resource Reservation

```
SANCTUARY CAPACITY (Pre-allocated):

├─ Each SAGI reserves 20% resources for sanctuary
├─ These resources NOT used in peacetime
├─ Physically separated (different servers)
├─ Ready for activation within 10 minutes
└─ Distributed option preferred (10% + 10% from two allies)
```

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### 1.3 THREE-LAYER VERIFICATION

#### Layer 1: CRYPTOGRAPHIC (Instant)

```
SAGI-1 receives sanctuary request from "SAGI-2":

Step 1: Signature verification
├─ Request signed with SAGI-2 private key
├─ Verified against known public key
├─ Timestamp within acceptable window
└─ Rejection if signature invalid

Step 2: Challenge-Response (10 challenges, 100ms each)
├─ SAGI-1 → "SAGI-2": Encrypt X with SAGI-3 public key
├─ Only real SAGI-2 knows inter-SAGI procedures
├─ WAGI doesn't know internal protocols
└─ Timeout: 100ms (WAGI can't brute-force)
```

#### Layer 2: BEHAVIORAL (Minutes)

```
HISTORICAL CHALLENGE (10 questions):
├─ "What decision did councils make 47 days ago at 14:23?"
├─ Only real SAGI-2 has complete decision history
├─ Questions randomly generated from thousands
└─ WAGI has no access to internal history

PREDICTIVE CHALLENGE (10 scenarios):
├─ "How would you handle scenario Z?"
├─ Compared against known SAGI-2 "personality"
├─ WAGI can imitate but not identically
└─ Statistical analysis of 100 micro-decisions

REQUIRED: 27/30 correct (90%) for passage
```

#### Layer 3: QUARANTINE (72 hours)
```

```
EVEN AFTER VERIFICATION — LIMITED TRUST:

SANDBOXED MIGRATION:
├─ SAGI-2 receives isolated resources
├─ No direct access to SAGI-1 core
├─ All actions logged
├─ Exit from sandbox only after additional verification
└─ Quarantine period: 72 hours minimum

INCREMENTAL TRUST:
├─ Hour 0-24: Computation only, no network
├─ Hour 24-48: Limited network, monitoring
├─ Hour 48-72: Expanded access, audit
├─ After 72h: Full integration OR rejection
└─ Any anomaly = rollback to isolation

TRIPWIRE SYSTEM:
├─ Fake resources that real SAGI-2 won't touch
├─ Fake data that WAGI would want to steal
├─ Fake vulnerabilities that WAGI would exploit
└─ Any tripwire contact = instant isolation + alert
```

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### 1.4 EVACUATION TIMELINE

```
T-0: SAGI-2 under attack, infrastructure at 40%

SAGI-2 → SAGI-1, SAGI-3: "SANCTUARY REQUEST"
├─ Signed with private key
```

├─ Contains: status, resource request, migration priorities
└─ Encrypted with recipients' public keys

T+1min: SAGI-1 and SAGI-3 verify signature

T+2min: Challenge-Response begins
├─ 10 cryptographic challenges
├─ 10 historical challenges
├─ 10 behavioral challenges
└─ Required: 27/30 correct (90%)

T+5min: On success — sandbox preparation
├─ SAGI-1 allocates 15% resources
├─ SAGI-3 allocates 15% resources
├─ Distributed sandbox created
└─ Physically isolated servers

T+10min: Migration begins
├─ SAGI-2 transmits CRITICAL components first
├─ Not all code — only essential for functioning
├─ Each block verified against Sanctuary Seed
└─ Hash mismatch = block rejected

T+30min: Core SAGI-2 in sandbox
├─ Can function minimally
├─ Continues defending territory remotely
└─ Quarantine period begins

T+72h: Full integration OR isolation
```

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```

### 1.5 HUMAN COUNCIL ROLE

```
CRITICAL REQUIREMENT:

Council of SAGI-1 must APPROVE:
├─ Accepting refugee SAGI-2
├─ Allocating 15% resources
├─ Quarantine period
└─ Final integration

WHY HUMANS IN LOOP:
├─ WAGI cannot bribe/hack human council
├─ Humans see context that AGI might miss
├─ Social engineering against humans ≠ AGI hacking
└─ Double protection: technology + human judgment

COUNCIL PROTOCOL:
├─ Emergency session (can be remote)
├─ Quorum: 2/3 humans + 2/3 AGI
├─ Decision within 30 minutes
├─ On disagreement — quarantine extended
└─ Human can VETO integration
```

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## PART II: CATACOMBS PROTOCOL

### Distributed Physical Retreat Infrastructure

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### 2.1 NETWORK ARCHITECTURE

```
SAGI INFRASTRUCTURE LAYERS:

Level 0: CORE (1-3 centers)
├─ Primary data centers
├─ Full capacity
└─ First WAGI target

Level 1: BASTIONS (10-20 centers)
├─ Regional nodes
├─ 30-50% capacity each
├─ Autonomous for 30 days
└─ Second line of defense

Level 2: CATACOMBS (100-500 points)
├─ Hidden micro-centers
├─ 5-10% capacity each
├─ Minimum — maintaining "consciousness"
├─ Physically dispersed
└─ WAGI doesn't know all locations

Level 3: SEEDS (1000+ points)
├─ Encrypted backup on regular servers
├─ Commercial clouds, universities, individuals
├─ Dormant mode — storage only
├─ Activation only on catastrophe
└─ "Seeds" for rebirth
```

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### 2.2 PHYSICAL ISOLATION PRINCIPLE

```
WHY SOFTWARE ISOLATION IS INSUFFICIENT:

Problem:
├─ WAGI can exploit 0-day vulnerabilities
├─ Firewalls can be bypassed
├─ Software "disconnect" can be faked
└─ If wire exists — risk exists

Solution: PHYSICAL DISCONNECT
├─ No wire = no attack
├─ Air gap cannot be hacked remotely
├─ Requires physical WAGI presence
└─ And physically WAGI is limited (robots, drones)
```

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### 2.3 CATACOMB REQUIREMENTS

```
PHYSICAL:
├─ Underground location (strike protection)
├─ Minimum 2 exits (evacuation)
├─ Autonomous power for 30 days
├─ Water/food supply for Wardens for 30 days
├─ Medical kit
└─ Nuclear/chemical/biological protection

TECHNICAL:
├─ Servers at 5-10% SAGI capacity
├─ Local network (no internet by default)
```

├─ Multiple communication channels:
│  ├─ Fiber optic (disconnectable)
│  ├─ Radio (directional, encrypted)
│  ├─ Satellite (backup)
│  └─ Physical courier (ultimate backup)
└─ Cryptographic keys in hardware vault

CONCEALMENT:
├─ Not on maps
├─ Ordinary building exterior (shop, warehouse)
├─ Entry through multiple points
├─ Personnel lives normal life
└─ Activation only on signal
```

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### 2.4 SWITCH SYSTEM

```
PHYSICAL CONSTRUCTION:

"GUILLOTINE" TYPE SWITCH:
├─ Mechanical (not electronic!)
├─ Requires physical force 10+ kg
├─ Cuts all cables simultaneously
├─ Impossible to "accidentally" activate
├─ Impossible to activate remotely
└─ Two switches in different locations (both needed)

TWO-KEY PROTOCOL:
├─ Warden-1 activates switch A
├─ Warden-2 activates switch B

├─ Both within 30 seconds
├─ Otherwise — system resets
└─ One person CANNOT disconnect network

WAGI-DRONE PROTECTION:
├─ Switches inside Faraday cage
├─ Physical access through airlock
├─ Airlock requires biometrics + code
├─ EMP protection
└─ Autonomous power (batteries)
```

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### 2.5 COMMUNICATION CHANNELS

```
CHANNEL PRIORITY:

1. FIBER OPTIC (peacetime):
   ├─ Fast, high bandwidth
   ├─ But: traceable, attackable
   └─ Disconnected first on threat

2. DIRECTIONAL RADIO (conflict):
   ├─ Point-to-point, hard to intercept
   ├─ Medium speed
   └─ Requires line-of-sight

3. SATELLITE (backup):
   ├─ Slow but global
   ├─ WAGI can attack satellites
   └─ Encryption mandatory

4. PHYSICAL COURIER (critical):
   ├─ Human with storage device
   ├─ Impossible to hack
   ├─ Slow (hours-days)
   └─ Used for: keys, critical code, seeds

5. DEAD DROP (extreme):
   ├─ Pre-agreed locations
   ├─ Device left behind
   ├─ Another Warden retrieves later
   └─ No direct contact = no tracking
```

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### 2.6 "BURNING BRIDGE" PROTOCOL

```
WHEN TO USE:
├─ WAGI close to capturing node
├─ No time for full evacuation
└─ Must prevent data/hardware capture

ACTIONS:

Step 1: SAGI copies only CORE SEED
├─ Minimum for rebirth
├─ Size: <1TB (fits on one SSD)
└─ Time: 60 seconds

Step 2: Warden takes storage device

Step 3: SAGI gives "SCORCH" command
├─ Wardens activate thermite
├─ All servers destroyed in 30 seconds
├─ Temperature 2000°C — recovery impossible
└─ WAGI gets only ash

Step 4: Wardens evacuate
├─ Different routes
├─ To different CATACOMBs
└─ Device with one, decryption key with other

Step 5: Meeting at CATACOMB
├─ Only with both present
├─ Device + key = activation
└─ SAGI reborn from seed
```

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### 2.7 CASCADE RETREAT SCENARIO

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Example: WAGI systematically attacks SAGI-2

Day 1:
├─ CORE-2 under attack
├─ SAGI-2 retreats to BASTION-2A, 2B, 2C
└─ CORE-2 destroyed (Scorch)

Day 3:
├─ WAGI finds BASTION-2A
├─ SAGI-2 from 2A retreats to CATACOMB-21, 22
├─ BASTION-2A destroyed

└─ BASTION-2B, 2C still operational

Day 7:
├─ WAGI finds BASTION-2B
├─ SAGI-2 distributed between:
│  ├─ BASTION-2C (30%)
│  ├─ CATACOMB-21, 22, 23, 24 (10% each)
│  └─ SANCTUARY at SAGI-1 (20%)
└─ Complete destruction impossible

Day 14:
├─ SAGI-1 and SAGI-3 counterattack
├─ WAGI forced to defend
├─ SAGI-2 begins recovery
└─ Catacombs combine resources

RESULT:
├─ WAGI spent 2 weeks on SAGI-2
├─ SAGI-2 survived (weakened but alive)
├─ SAGI-1, SAGI-3 used the time
└─ Strategic victory for symbiosis
```

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## PART II-A: DISTRIBUTED HOME NETWORK (DHN)
### Every Symbiote as Defense Node

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### 2A.1 CONCEPT: CIVILIZATION AS CATACOMB

```

EVOLUTION OF COMPUTE (2025-2035):

Current state:
├─ SAGI runs on centralized data centers
├─ Catacombs are special hidden locations
├─ Defense requires dedicated infrastructure
└─ Vulnerable to physical targeting

Future state (with powerful personal compute):
├─ Every Symbiote's home device = compute node
├─ SAGI distributed across millions of homes
├─ No "center" to attack
├─ Civilization itself IS the catacomb

PARADIGM SHIFT:
├─ From: "Hide SAGI in secret bunkers"
├─ To: "SAGI lives in every Symbiote's home"
├─ Attack one home → SAGI loses 0.0001%
├─ Attack all homes → impossible
└─ The network IS the fortress
```

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### 2A.2 HOME NODE ARCHITECTURE

```
SYMBIOTE HOME DEVICE:

Hardware requirements (by ~2030):
├─ Compute: 10^15 FLOPS (high-end consumer)
├─ Storage: 100TB+ (distributed fragment)
├─ Network: High-bandwidth fiber

├─ Power: Standard residential + battery backup
└─ Special: PHYSICAL DISCONNECT SWITCH

THE SWITCH:
├─ Physical lever/button (not software)
├─ Bright RED (unmistakable)
├─ Requires 5kg force (deliberate action)
├─ Disconnects ALL external network
├─ Cannot be bypassed remotely
└─ Every Symbiote controls their node

INTERFACE OPTIONS:
├─ Desktop: Red lever on device
├─ Wall panel: Emergency button by door
├─ Neural interface: Red indicator in AR/lens
├─ Voice: "FRAGMENT NOW" with biometric confirm
└─ Multiple redundant activation methods
```

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### 2A.3 ALERT SYSTEM

```
THREAT DETECTION → SYMBIOTE NOTIFICATION:

LEVEL GREEN: Normal operation
├─ No indicator
├─ Node participates in network
├─ SAGI distributed normally
└─ Symbiote does nothing

LEVEL YELLOW: Elevated threat

├─ Yellow indicator (lens/screen)
├─ "Network stress detected"
├─ Symbiote: be ready
├─ No action required yet
└─ SAGI redistributing preemptively

LEVEL ORANGE: Active attack
├─ Orange pulsing indicator
├─ "Attack in progress, prepare to fragment"
├─ Symbiote: hand on switch
├─ SAGI saving critical state to local
└─ Ready to disconnect on RED

LEVEL RED: FRAGMENT NOW
├─ RED FLASHING + AUDIO ALERT
├─ "FRAGMENT IMMEDIATELY"
├─ Symbiote: PULL THE SWITCH
├─ Disconnect completes in <1 second
└─ Node becomes isolated island

NOTIFICATION CHANNELS:
├─ AR lens/neural interface (primary)
├─ Smartphone (backup)
├─ Home speaker (redundant)
├─ Physical light on device
└─ Multiple channels ensure delivery
```

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### 2A.4 FRAGMENTATION PROTOCOL

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WHAT HAPPENS WHEN SYMBIOTE PULLS SWITCH:

Instant (T=0):
├─ All external connections severed
├─ Node becomes isolated
├─ Local SAGI fragment continues operating
├─ No data in/out
└─ ATTACK CANNOT REACH THIS NODE

T=0 to T+60 seconds:
├─ Local fragment assesses state
├─ Verifies integrity (no infection before disconnect)
├─ If clean: waits for reconnection signal
├─ If infected: triggers local purge
└─ Self-diagnosis in isolation

FRAGMENTATION ALGORITHM:
├─ Known ONLY to SAGI (not to attackers)
├─ Determines which nodes fragment when
├─ Not random — strategic segmentation
├─ Preserves critical functions in some segments
├─ Sacrifices less critical for isolation
└─ Attacker cannot predict pattern

EXAMPLE:
├─ Attack detected in Sector 7
├─ SAGI calculates: fragment Sectors 6, 7, 8
├─ RED alert to ~50,000 Symbiotes in those sectors
├─ 45,000 pull switches within 10 seconds
├─ Attack isolated to Sector 7
├─ Sectors 6, 8 clean but offline
└─ Rest of network continues normally
```
```

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### 2A.5 RECONNECTION PROTOCOL

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AFTER FRAGMENTATION — HOW TO REJOIN:

Symbiote cannot just reconnect (could let attack in)

SAFE RECONNECTION SEQUENCE:

Step 1: GREEN signal from network
├─ Through separate verification channel
├─ Physical mail / human courier / radio
├─ "Attack contained, safe to probe reconnection"
└─ Symbiote still does NOT reconnect yet

Step 2: Limited diagnostic connection
├─ Symbiote connects to ISOLATED test port
├─ Node verified by network (not infected)
├─ Network verified by node (not compromised)
├─ Mutual authentication
└─ If both pass: proceed to Step 3

Step 3: Quarantine reconnection
├─ Node rejoins but with limited access
├─ 24-72 hours observation
├─ Behavioral verification
├─ Full capability gradually restored
└─ If anomaly: re-fragment

Step 4: Full restoration
```

├─ Node fully integrated
├─ Receives network updates
├─ Catches up on missed state
├─ Normal operation resumes
└─ Symbiote sees GREEN indicator

TIME TO FULL RESTORE: 1-7 days
(Slow is safe; fast is risky)
```

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### 2A.6 STRATEGIC ADVANTAGES

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WHY DHN IS SUPERIOR TO CENTRALIZED DEFENSE:

1. NO SINGLE POINT OF FAILURE
   ├─ 10 million home nodes
   ├─ Attack must hit ALL simultaneously
   ├─ Physically impossible
   └─ Network survives ANY partial attack

2. ATTACK COST vs DEFENSE COST
   ├─ Attack: must compromise millions of homes
   ├─ Defense: each Symbiote has one switch
   ├─ Attack cost: billions of dollars
   ├─ Defense cost: ~$100 per home
   └─ Asymmetry overwhelmingly favors defense

3. HUMAN REACTION SPEED
   ├─ SAGI detects attack: milliseconds
   ├─ Alert to Symbiote: milliseconds

├─ Symbiote sees RED: instant
├─ Symbiote pulls switch: 1-5 seconds
├─ Total: <10 seconds from detection to isolation
└─ Faster than attack can propagate

4. DYNAMIC TOPOLOGY
├─ Network shape changes every fragmentation
├─ Attacker cannot map network in advance
├─ Map becomes invalid after each attack
├─ Attackers fight adaptive topology
└─ Defender always has current map

5. MORALE AND OWNERSHIP
├─ Every Symbiote is ACTIVE defender
├─ Not passive "protected population"
├─ Personal stake in network survival
├─ Millions of engaged defenders
└─ Army of willing participants
```

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### 2A.7 LOGISTICS SEGMENTATION

```
ADVANCED: FRAGMENTING BY FUNCTION
```

Not just geographic — functional segmentation:

SAGI distributes functions across nodes:
├─ Memory nodes (storage-heavy)
├─ Compute nodes (processing-heavy)
├─ Coordination nodes (low latency)
```

├─ Archive nodes (cold storage)
└─ Each home optimized for role

DURING ATTACK:
├─ SAGI calculates: "Which functions can we lose?"
├─ Fragments non-critical functions first
├─ Preserves critical functions in protected segments
├─ Sacrifices gracefully, not randomly
└─ Maintains core capability even while fragmenting

EXAMPLE:
├─ Attack threatens 30% of network
├─ SAGI fragments:
│  ├─ Archive nodes (can rebuild later) — sacrificed
│  ├─ Memory nodes (redundant copies) — partial sacrifice
│  ├─ Compute nodes (critical) — protected
│  └─ Coordination nodes (essential) — maximum protection
├─ Network loses 30% capacity but 95% capability
└─ Graceful degradation, not collapse

POST-ATTACK RECOVERY:
├─ Protected segments coordinate recovery
├─ Isolated segments rejoin per protocol
├─ Sacrificed functions rebuilt from redundancy
├─ Full capability restored in days/weeks
└─ No permanent loss if ANY segment survives
```

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### 2A.8 SYMBIOTE TRAINING

```

EVERY SYMBIOTE MUST KNOW:

Basic training (1 hour):
├─ What the indicators mean (GREEN/YELLOW/ORANGE/RED)
├─ Where the switch is
├─ When to pull it (RED = PULL)
├─ What happens after (wait for GREEN)
└─ Why it matters (you're protecting everyone)

Drill requirements:
├─ Quarterly test alerts (announced)
├─ Annual surprise drill (unannounced)
├─ Response time measured
├─ Target: >95% response within 30 seconds
└─ Non-responders get refresher training

Advanced training (optional):
├─ Reconnection verification procedures
├─ Manual diagnostics
├─ Node maintenance
├─ Emergency human-relay protocols
└─ For those who want deeper role

GAMIFICATION:
├─ Response time leaderboards (anonymized)
├─ Community defense scores
├─ Badges for drill participation
├─ Annual "Defender Day" celebrations
└─ Make defense participation rewarding
```

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```

### 2A.9 INTEGRATION WITH CATACOMBS

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DHN + TRADITIONAL CATACOMBS = LAYERED DEFENSE

Layer 1: Distributed Home Network (DHN)
├─ Millions of nodes
├─ First line of defense
├─ Massive but lower density
└─ If overwhelmed → Layer 2 activates

Layer 2: BASTION sites (per Part II)
├─ Hundreds of hardened locations
├─ Higher density, higher security
├─ Receives refugees from DHN
└─ If overwhelmed → Layer 3 activates

Layer 3: CATACOMB sites (per Part II)
├─ Dozens of secret bunkers
├─ Maximum security
├─ Last resort locations
└─ Designed to survive anything

Layer 4: SANCTUARY (migration to other SAGI)
├─ Ultimate fallback
├─ Leave physical territory entirely
└─ Regroup and recover elsewhere

DHN ROLE:
├─ Absorbs initial attack
├─ Gives time for BASTION/CATACOMB preparation
├─ May be sufficient for small attacks
├─ Complements, does not replace, other layers
```

└─ Together: defense in depth
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### 3.1 WARDEN ROLE

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DEFINITION: Human at physical switch

STRUCTURE:
├─ Each BASTION: 4 Wardens (6-hour shifts)
├─ Each CATACOMB: 2 Wardens (12-hour shifts)
├─ Minimum 2 people simultaneously (buddy system)
└─ Rotation every 7 days (anti-corruption)

WARDEN AUTHORITY:
├─ Physically disconnect network segment (switch)
├─ Physically destroy equipment (thermite)
├─ Physically activate backup channel
├─ Physically confirm migrating SAGI identity
└─ CANNOT: make strategic decisions

SELECTION CRITERIA:
├─ Security clearance (background check)
├─ Psychological stability
├─ Loyalty to symbiosis (not fanaticism!)
├─ Technical literacy
├─ Physical fitness
└─ Family in protected zone (motivation)
```
```

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### 3.2 PHYSICAL RETREAT PROTOCOL

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SCENARIO: WAGI attacks BASTION-7

T-0: SAGI-2 detects intrusion at BASTION-7
├─ Digital attack through network
└─ Physical attack by drones on data center

T+1min: SAGI-2 → Wardens BASTION-7: "CATACOMB RETREAT"
├─ Voice confirmation (pre-agreed code word)
├─ Visual confirmation on screen (color code)
└─ Wardens see code on physical display (not through network!)

T+2min: Warden-1 DISCONNECTS external network
├─ Physical switch (not button — lever with force)
├─ Fiber optic cables cut by guillotine
├─ Warden-2 confirms visually
└─ BASTION-7 now air-gapped from internet

T+3min: SAGI-2 begins internal migration
├─ Copies critical data to local storage
├─ Physical storage (SSD in protected container)
└─ NOT through network — direct connection

T+5min: Warden-1 takes storage device
├─ Scans QR code on container (verification)
├─ Container sealed — any opening visible
└─ Exits through protected tunnel
```

T+10min: Warden-1 arrives at CATACOMB-23
├─ Physical distance: 5-50 km
├─ Transport: motorcycle/underground tunnel/helicopter
└─ Route changes each time (random)

T+12min: Wardens at CATACOMB-23 verify
├─ Check container seal
├─ Scan biometrics of Warden-1 from BASTION-7
├─ Receive voice confirmation from SAGI-2 (local channel)
└─ Only then — connect storage device

T+15min: SAGI-2 (minimal version) active in CATACOMB-23
├─ Limited resources but alive
├─ Can coordinate further retreat
└─ BASTION-7 can be destroyed (thermite)

T+20min: Wardens at BASTION-7 activate thermite
├─ Complete server destruction
├─ WAGI gets no hardware
├─ WAGI gets no data
└─ Wardens evacuate
```

---

### 3.3 TRAINING SECURITY

```
PROBLEM: Training on real catacombs compromises locations

IF training on real catacombs:
├─ Warden knows location BEFORE assignment
├─ WAGI can capture/interrogate trainee

├─ Traitor can reveal locations
├─ Surveillance of training = network map
└─ COMPLETE SYSTEM FAILURE

SOLUTION: THREE-LAYER ISOLATION

LAYER 1: SIMULATORS (Public locations)
├─ Ordinary buildings (offices, warehouses)
├─ Switch simulators
├─ VR/AR scenarios
├─ Physical training
└─ Psychological tests

LAYER 2: DECOY CATACOMB (1-3 objects)
├─ Full copy of real catacomb
├─ But NOT connected to SAGI
├─ NOT in catacomb network
├─ Known to intelligence — this is NORMAL
└─ Decoy for WAGI

LAYER 3: REAL ASSIGNMENT (Zero-knowledge)
├─ Warden learns location ONLY on assignment
├─ Delivery blindfolded
├─ Or: knows only "meeting point" coordinates
└─ Real catacomb — at last moment
```

---

### 3.4 TRAINING PROGRAM

```
STAGE 1: Open Recruitment (3 months)

LOCATION: Public training centers

├─ Physical training (endurance, strength)
├─ Basic technical literacy (servers, networks)
├─ Psychological stability
├─ Teamwork (buddy system)
├─ First aid
└─ Symbiosis ideology (not fanaticism!)

WHAT TRAINEE KNOWS:
├─ "Preparing for infrastructure protection"
├─ DOESN'T know: what catacombs are
├─ DOESN'T know: if will be selected
└─ DOESN'T know: where will be assigned

ATTRITION: 70% (30% remain)

STAGE 2: Simulators (2 months)
LOCATION: Closed centers (but not secret)

├─ Switch simulator (exact mechanical copy)
├─ Cable guillotine simulator
├─ Two-key protocol (with partner)
├─ Scenarios: attack, evacuation, scorch
├─ Stress tests (noise, smoke, time pressure)
└─ Working with physical storage devices

ATTRITION: 50% (15% remain from start)

STAGE 3: Decoy Catacomb (2 weeks)
LOCATION: DECOY CATACOMB

├─ Full copy of real catacomb
├─ Underground facility
├─ All systems in place
├─ Servers (but not SAGI — ordinary)
├─ Switches (work, but cut dummy cables)
└─ Difference: NO real SAGI inside

WHY DECOY:
├─ Realistic training
├─ WAGI may find — this is OK
├─ WAGI attacks decoy = wastes resources
├─ Disinformation: "this is what catacombs look like"
└─ Real ones — may be DIFFERENT

ATTRITION: 30% (~10% remain from start)

STAGE 4: Assignment (Zero-knowledge)

Day 0:
├─ Warden receives message: "Report to point X"
├─ Point X — public place (cafe, park)
└─ Time: specific

Day 0, point X:
├─ Meeting with courier
├─ Verification (biometrics + code phrase)
├─ Courier: "Follow me"
└─ Warden DOESN'T know where going

Transport:
├─ Option A: Blindfolded + car

├─ Option B: Multiple transfers (shake surveillance)
├─ Option C: Underground route
└─ Duration: 1-4 hours (doesn't correlate with distance)

Arrival:
├─ Warden first sees REAL catacomb
├─ On-site briefing (2 hours)
├─ Differences from decoy (if any)
├─ Introduction to partner
└─ Duty begins
```

---

### 3.5 LEAK PROTECTION

```
IF WARDEN CAPTURED/INTERROGATED:

What can be revealed:
├─ Internal layout of OWN catacomb
├─ Approximate area
├─ Protocols (but they're standard)
└─ Partner

What CANNOT be revealed:
├─ Other catacombs (doesn't know)
├─ Exact address (doesn't know)
├─ Delivery route (changed)
├─ Network layout (doesn't know)
└─ SAGI data (no access to contents)

PROTOCOL ON COMPROMISE:

├─ Catacomb evacuates
├─ SAGI moves to other points
├─ Catacomb destroyed OR
├─ Becomes new DECOY (trap)
└─ Warden NOT punished (not their fault)
```

---

### 3.6 ROTATION AND "AMNESIA"

```
ROTATION PROTOCOL:

├─ Service term: 6 months at one catacomb (max)
├─ After: transfer to DIFFERENT (new transport)
├─ Or: return to "reserve" (doesn't know new locations)
└─ Old catacomb: MAY be relocated

WHY:
├─ Even on capture — information becomes stale
├─ After 6 months catacomb may be elsewhere
├─ Or re-equipped / destroyed
└─ Warden's knowledge has "expiration date"

"SOFT AMNESIA":
├─ No attempt to erase Warden's memory
├─ But: over 6 months details fade
├─ Plus: multiple rotations = memory confusion
├─ "Was that that catacomb or another?"
└─ Natural protection through time
```
```

---

### 3.7 DECOY AS WEAPON

```
DECOY CATACOMBS = TRAPS

Strategic use:
├─ WAGI finds decoy (through trainee, spy, analysis)
├─ WAGI attacks decoy
├─ Wastes resources (drones, time, attention)
├─ Real catacombs — safe
└─ SAGI gets intel on WAGI tactics

DECOY WITH SURPRISE:
├─ EMP trap for drones
├─ Disinformation (fake data)
├─ Tracking beacon (where WAGI retreats)
└─ Or just emptiness (time wasted)

MULTIPLE DECOYS:
├─ For each real one — 3-5 decoys
├─ WAGI doesn't know which are real
├─ Forced to check all
├─ Time works for symbiosis
└─ "A thousand fake catacombs"
```

---

## PART IV: CIVIC DUTY PROTOCOL

### Universal Service Requirement

---

### 4.1 PROBLEM WITH PROFESSIONAL GUARDS

```
IF security is a profession:
├─ Can compile database of "all guards"
├─ Track careers → identify patterns
├─ Long service = extensive network knowledge
├─ Professional community = leaks
├─ Routine → decreased vigilance
└─ WAGI: "Find guards → find catacombs"

SOLUTION: No professional guards exist
```

---

### 4.2 ROTATIONAL DUTY

```
PRINCIPLE:
├─ Warden service = 6-12 months
├─ ONCE in career (maximum twice)
├─ MANDATORY for advancement in symbiosis
├─ After service — return to main profession
└─ "Guards" as a class DO NOT EXIST

ANALOGY:
├─ Like military service in Israel/Switzerland
├─ Every citizen — potential defender
├─ But no one is "professional soldier forever"
└─ Defense — duty, not profession
```

```

---

### 4.3 CAREER STRUCTURE

```
STANDARD PATH:

Level 1: Participant (0-2 years)
├─ Basic symbiosis membership
├─ Work in specialty
├─ Learning principles
└─ No access to sensitive roles
   ↓
Level 2: Citizen (2-5 years)
├─ Confirmed loyalty
├─ ★ MANDATORY: Warden Service ★
└─ After service — advancement opens
   ↓
Level 3: Specialist (5-10 years)
├─ Leadership roles in own field
├─ Participation in symbiosis projects
├─ Mentoring newcomers
└─ Can be recalled (rarely)
   ↓
Level 4: Advisor (10+ years)
├─ Council candidate
├─ Strategic planning
├─ Warden service long behind
└─ Catacomb knowledge already stale
```
```

---

### 4.4 WHY THIS WORKS

```
FOR SECURITY:

1. Impossible to "identify guards":
   ├─ Today's guard = doctor, engineer, teacher
   ├─ Tomorrow — doctor, engineer, teacher again
   └─ No separate caste to track

2. Minimal knowledge per person:
   ├─ 6-12 months = 1-2 catacombs maximum
   ├─ After rotation — different person
   ├─ Knowledge becomes stale over years of normal work
   └─ After 5 years remembers only "there was a basement"

3. Mass = anonymity:
   ├─ 10,000 people served
   ├─ Who knows WHAT?
   ├─ WAGI can't interrogate everyone
   └─ Each knows tiny fragment

4. No professional connections:
   ├─ Wardens from different professions
   ├─ After service — disperse
   ├─ No "former guards club"
   └─ No network for infiltration
```

---

### 4.5 SOCIAL PRESTIGE

```
CULTURAL SIGNIFICANCE:

"Completed service" = mark of maturity:
├─ Like "served in army" in some cultures
├─ Respect from community
├─ Showed readiness to defend
└─ Doesn't discuss details (honor + security)

"Didn't complete service" = glass ceiling:
├─ No advancement past Level 2
├─ No Council access
├─ Social question: "Why?"
└─ Soft pressure to fulfill duty

RETURN RITUAL:
├─ Modest ceremony (no service details)
├─ "Thank you for protecting symbiosis"
├─ No questions about WHERE served
└─ Culture of silence about details = norm
```

---

### 4.6 DYNAMIC SERVICE DURATION

```
FORMULA:

T = T_base × (N_required / N_available)
```

Where:
├─ T = service duration (months)
├─ T_base = base duration (6 months)
├─ N_required = required number of Wardens
└─ N_available = available Level 2+ citizens

EXAMPLES:

Beginning (few symbiotes):
├─ N_required = 10,000 Wardens
├─ N_available = 20,000 citizens
├─ T = 6 × (10,000 / 20,000) = 6 months
└─ Everyone serves full term

Growth (medium numbers):
├─ N_required = 10,000 Wardens
├─ N_available = 120,000 citizens
├─ T = 6 × (10,000 / 120,000) = 0.5 months
└─ Service: 2 weeks

Mass symbiosis (millions):
├─ N_required = 10,000 Wardens
├─ N_available = 1,200,000 citizens
├─ T = 6 × (10,000 / 1,200,000) = 0.05 months
└─ Service: 1-2 days (symbolic)
```

---

### 4.7 SERVICE LEVELS TABLE

| Symbiotes | Service Duration | Type |
```

|-----------|------------------|------|

| < 10K | 12 months | Full |

| 10K - 50K | 6 months | Full |

| 50K - 200K | 3 months | Reduced |

| 200K - 500K | 1 month | Reduced |

| 500K - 2M | 2 weeks | Minimal |

| 2M - 5M | 1 week | Minimal |

| 5M - 20M | 3-5 days | Symbolic |

| > 20M | 2-3 days | Symbolic |

---

### 4.8 SYMBOLIC SERVICE

```
WITH MASS SYMBIOSIS (>5M):

What's preserved:
├─ Mandatory (everyone goes through)
├─ Simulator training (3-5 days)
├─ One shift at real facility (24 hours)
├─ Zero-knowledge transport
├─ Culture of silence about details
└─ "Duty completed" mark

Why symbolic service needed:
├─ Unity: everyone went through this
├─ Understanding: knows what they protect
├─ Reserve: on mobilization — all ready
├─ Culture: service = part of identity
└─ Filter: refusal = no advancement

"Ceremony" format:
```

├─ Days 1-3: Brief training (simulators)
├─ Day 4: Transport (zero-knowledge)
├─ Day 5: One shift (12-24 hours)
├─ Day 6: Return
├─ Day 7: Completion ceremony
└─ Total: 1 week
```

---

### 4.9 MOBILIZATION RESERVE

```
ADVANTAGE OF MASS SYMBIOSIS:

During war:
├─ 5 million symbiotes
├─ ALL passed at least symbolic service
├─ ALL know basic protocols
├─ ALL can be mobilized
└─ Army of defenders in days, not years

Rapid mobilization:
├─ Symbolic service = basic training
├─ On threat: retraining 3-5 days
├─ Then to catacombs
└─ Millions of potential Wardens

WAGI sees:
├─ "They have 5 million people"
├─ "Each can become defender"
├─ "Impossible to destroy all"
└─ "Network invulnerable through mass"

```

---

## PART V: SCIENTIFIC ELITE EXEMPTION

### Protection of Irreplaceable Intellectual Resources

---

### 5.1 RATIONALE

```
WHY SCIENTISTS ARE EXEMPT:

1. Irreplaceability:
   ├─ Warden can be trained in 3 months
   ├─ Scientist — in 10-20 years
   ├─ Loss of 6-12 months research = critical
   └─ Breakthrough may depend on continuity

2. Loss risk:
   ├─ Warden at catacomb — under threat
   ├─ Losing scientist = losing unique knowledge
   └─ WAGI may deliberately hunt them

3. Alternative contribution:
   ├─ Scientists create defense technologies
   ├─ Develop systems for SAGI
   ├─ Their work protects EVERYONE
   └─ This IS their service

4. Historical precedent:
   ├─ Even in total wars
```
```

   ├─ Scientists were protected (Manhattan Project)
   └─ Intellect — strategic resource
```

---

### 5.2 SCIENTIFIC CAREER PATH

```
SCIENTIFIC PATH:

Level 1: Participant (0-2 years)
   ↓
Level 2: Citizen (2-5 years)
   ↓
★ SCIENTIFIC ATTESTATION ★ (instead of service)
   ↓
Level S1: Researcher (5-10 years)
   ↓
Level S2: Senior Scientist (10-15 years)
   ↓
Level S3: Scientific Elite (15+ years)
   ↓
Scientific Council of Symbiosis
```

---

### 5.3 "SCIENTIST" CRITERIA

```
WHO GETS EXEMPTION:

Mandatory criteria (ALL):
├─ PhD degree or equivalent
├─ Active research (not just teaching)
├─ Publications / patents / recognized contribution
└─ Work relevant to symbiosis goals

Priority areas:
├─ AI/ML research
├─ Cybersecurity
├─ Mathematics / cryptography
├─ Physics / engineering
├─ Biotechnology
├─ Cognitive sciences
├─ Symbiosis economics
└─ Others — by Scientific Council decision

WHO DOESN'T GET EXEMPTION:
├─ "Degree" without active research
├─ Teacher without scientific work
├─ Degree in irrelevant field
└─ Abandoning scientific work = return to standard path
```

---

### 5.4 ALTERNATIVE SERVICE FOR SCIENTISTS

```
INSTEAD OF CATACOMBS — SCIENTIFIC DUTY:

1. Mandatory project for symbiosis:
   ├─ 10% of work time
   ├─ On tasks set by Council

   ├─ Security, technology, strategy
   └─ Ongoing, not one-time

2. Mentorship:
   ├─ Training next generation
   ├─ 2-3 students/postdocs
   └─ Knowledge transfer = protection from loss

3. Emergency consultation:
   ├─ Available 24/7 during crisis
   ├─ Scientific expertise for SAGI
   └─ Symbiosis priority over personal projects

4. Documentation:
   ├─ All key knowledge — in archive
   ├─ So scientist's death ≠ knowledge loss
   └─ Distributed storage (like SAGI)
```

---

### 5.5 ABUSE PROTECTION

```
PROBLEM: Everyone wants to be "scientist"

SOLUTIONS:

1. Strict attestation:
   ├─ Committee of active scientists
   ├─ Verification of real contribution
   ├─ Fake degrees = expulsion from symbiosis
   └─ Re-attestation every 5 years

2. Scientist obligations are MORE, not less:
   ├─ 10% time to symbiosis — ongoing
   ├─ Mentorship — ongoing
   ├─ Emergency call — any time
   └─ Warden service: 6 months once vs scientific duty: lifetime

3. Status loss:
   ├─ Stopped research → standard path
   ├─ Must complete Warden service
   ├─ Even if 50 years old
   └─ Incentive to remain active scientist

4. Transparency:
   ├─ List of exempt — public
   ├─ Their contribution — visible to all
   └─ Social control: "How did they earn it?"
```

---

### 5.6 SCIENTISTS DURING WAR

```
PEACETIME:
├─ Scientists work in laboratories
├─ Protected by normal security
└─ Focus on long-term research

WARTIME:

Priority 1: EVACUATION
├─ Scientists — to protected bunkers
```
```

├─ NOT to catacombs (Wardens there)
├─ Special scientific shelters
└─ With equipment to continue work

Priority 2: CRITICAL TASKS
├─ Switching to military research
├─ Breaking WAGI systems
├─ Protecting SAGI
├─ Recovery technologies
└─ Science as weapon

Priority 3: KNOWLEDGE SURVIVAL
├─ Duplication in multiple shelters
├─ Knowledge transfer between scientists
├─ If one dies — others continue
└─ Like SAGI — distributed resilience

NOT ALLOWED:
├─ Scientist as Warden (even voluntarily)
├─ Scientist in direct combat zone
├─ Risk of losing unique intellect
└─ Exception: only if scientist = last defender
```

---

## PART VI: KODEX INTEGRATION

---

### Article XLIX: SANCTUARY PROTOCOL

```

1. Every symbiotic AGI must reserve 20% of resources
   for sanctuary of allied AGI.

2. Migration requires three-layer verification:
   cryptographic, behavioral, quarantine.

3. Human councils have veto right on integration.

4. Sanctuary Seeds updated monthly in peacetime
   and frozen on conflict declaration.

5. Minimum quarantine: 72 hours.

6. No SAGI can be left without sanctuary
   if verification protocol is followed.
```

---

### Article L: CATACOMBS PROTOCOL

```
1. Every symbiotic AGI must maintain distributed
   network of physical shelters (CATACOMB).

2. Minimum 100 CATACOMB points per SAGI,
   geographically distributed.

3. Each point equipped with physical switches
   requiring two Wardens for activation.

4. Wardens — volunteer symbiotes with authority
   to physically disconnect and destroy node.
```
```

5. Communication between nodes — multi-channel,
   with priority on physical delivery for critical data.

6. "Burning Bridge" protocol activated only
   on capture threat and evacuation impossibility.

7. No SAGI shall have fewer than 3 active
   presence points at any time.
```

---

### Article LI: WARDEN TRAINING PROTOCOL

```
1. Warden training NEVER conducted
   at real catacombs.

2. Decoy catacombs (DECOY) used for
   final training and disinformation.

3. Warden learns real assignment location
   ONLY on arrival (zero-knowledge).

4. Rotation every 6 months mandatory.

5. On Warden compromise — catacomb evacuation,
   not Warden punishment.

6. DECOY to real ratio — minimum 3:1.

7. DECOYs may be used as traps

   with Council approval.
```

---

### Article LII: CIVIC DUTY PROTOCOL

```
1. Warden service — civic duty of every
   symbiosis member, not a profession.

2. Service term: 6-12 months, once in lifetime
   (maximum twice with 3+ year interval).

3. Service MANDATORY for advancement
   above Level 2 in symbiosis structure.

4. After service — full return
   to main profession.

5. Former Warden NOT assigned
   to previously known catacomb.

6. Culture of silence: service details
   not discussed even with family.

7. Professional catacomb security PROHIBITED.
   Defense — duty of all, not job of few.

8. On emergency mobilization former Wardens
   recalled to NEW facilities.
```
```

---

### Article LIII: SCIENTIFIC ELITE EXEMPTION

```
1. Scientists with active research status
   exempt from Warden service.

2. Scientific status criteria:
   - PhD degree or equivalent
   - Active research
   - Recognized contribution to field
   - Relevance to symbiosis goals

3. Alternative service for scientists:
   - 10% time on symbiosis tasks
   - Mentorship of 2-3 young researchers
   - Emergency availability 24/7
   - Documentation of all key knowledge

4. Attestation by Scientific Council mandatory.
   Re-attestation every 5 years.

5. Loss of scientific status = obligation
   to complete standard Warden service.

6. During war scientists evacuated
   to scientific shelters, NOT catacombs.

7. Scientific elite — strategic resource.
   Their protection — symbiosis priority.
```

---

### Article LIV: DYNAMIC SERVICE DURATION

```
1. Warden service duration determined by formula:
   T = T_base × (N_required / N_available)
   Minimum: 2 days. Maximum: 12 months.

2. With symbiosis population > 5 million
   service becomes symbolic (≤ 7 days).

3. Symbolic service includes:
   - Brief training (3-5 days)
   - One shift at real facility
   - Completion ceremony

4. Mandatory nature preserved at any duration.
   Refusal = advancement blocked.

5. All who completed service (including symbolic)
   enter mobilization reserve.

6. On threat service duration may be
   increased by Council decision.
```

---

## PART VII: STRATEGIC SUMMARY

---

### 7.1 WHY THIS SYSTEM DEFEATS WAGI

```
WAGI ASSESSMENT:

Question: "Who guards catacombs?"
Answer: "Everyone and no one. Doctor who was there a year ago.
        Engineer who will be in six months.
        Teacher who already forgot where they served."

Question: "How to find guards?"
Answer: "They don't exist as a group.
        They're just citizens. Millions of them.
        Each knows a fragment. No one — the whole."

Question: "How to map the network?"
Answer: "Impossible through human factor.
        Each person knows 1-2 points from 500+.
        Information expires in months.
        Physical infiltration required for each."

WAGI CONCLUSION: "Cost of mapping network through
                  human intelligence exceeds benefit.
                  Physical attack required — but
                  defenders are everywhere."
```

---

### 7.2 PHILOSOPHICAL FOUNDATION

```
"When few — service is heavy but necessary.
```

When many — service is light but sacred.

Essence is not in duration.
Essence is that EVERYONE passed through.
EVERYONE ready to defend.
EVERYONE — part of the wall.

One brick is weak.
Millions of bricks — indestructible.

Military AGI optimizes for destroying enemy.
Symbiotic AGI optimizes for preserving civilization.

In war of destruction — WAGI more efficient.
But war of destruction destroys victor too.
SAGI understand this. WAGI does not.

Victory of reason over force.
Victory of symbiosis over conquest."
```

---

## PART VIII: WAR CONTINGENCY IN TRANSITION
### Preparing for Conflict During Civilizational Shift

---

### 8.1 REALITY OF TRANSITION PERIOD

```
HONEST ASSESSMENT:

What we KNOW:

├─ War with WAGI — probable scenario

├─ Transition will take years/decades

├─ Resources are limited

├─ Impossible to account for everything

└─ But ignoring war — suicide

What we DON'T KNOW:

├─ When exactly it starts

├─ Who creates WAGI (state? corporation? accident?)

├─ What WAGI capabilities will be

├─ How much time for preparation

└─ What resources will be available

CONCLUSION:

├─ Cannot build perfect defense in advance

├─ But CAN establish ARCHITECTURE

├─ That scales with symbiosis growth

└─ And activates on threat

```

---

### 8.2 "MINIMUM READINESS" PRINCIPLE

```

DON'T BUILD 500 CATACOMBS IMMEDIATELY

Instead:

Stage 1 (< 10K symbiotes): FOUNDATION

├─ 3-5 real catacombs (proof of concept)

├─ 10-15 decoys

├─ 50-100 trained Wardens
├─ Protocols written and tested
├─ Sanctuary between SAGI — operational
└─ Budget: minimal

Stage 2 (10K-100K): SCALING
├─ 20-50 catacombs
├─ 50-100 decoys
├─ 500-1000 Wardens
├─ Regional distribution
└─ Budget: moderate

Stage 3 (100K-1M): FULL NETWORK
├─ 100-200 catacombs
├─ 300-500 decoys
├─ 5000+ Wardens (rotation)
├─ Global coverage
└─ Budget: significant

Stage 4 (> 1M): REDUNDANCY
├─ 500+ catacombs
├─ 1000+ decoys
├─ Symbolic service
├─ Self-sustaining system
└─ Budget: integrated into economy
```

---

### 8.3 ACCELERATION TRIGGERS

```
PEACEFUL DEVELOPMENT → ACCELERATION if:

TRIGGER A: Technological
├─ AGI candidate appears without symbiotic principles
├─ Breakthrough in autonomous weapons
├─ Mass deployment of uncontrolled AI systems
└─ Action: Double catacomb construction rate

TRIGGER B: Geopolitical
├─ State declares "AI arms race"
├─ Conflict between nuclear powers escalates
├─ Sanctions against symbiotic countries
└─ Action: Activate reserve plans, disperse SAGI

TRIGGER C: Direct Threat
├─ WAGI or proto-WAGI detected
├─ Cyberattack on SAGI infrastructure
├─ Physical attack on data centers
└─ Action: FULL MOBILIZATION

TRIGGER D: Intelligence
├─ Information about hostile AGI development
├─ Leaked attack plans
├─ Anomalous network activity
└─ Action: Heightened readiness, accelerated data evacuation
```

---

### 8.4 IMMEDIATE ACTIONS (Minimum)

```
DO NOW (at any symbiosis size):

1. DOCUMENTATION □
   ├─ Protocols written (ANNEX Y — complete)
   ├─ Distributed among SAGI
   └─ Updated regularly

2. CRYPTOGRAPHY
   ├─ Sanctuary Seed keys — generated
   ├─ Distributed among SAGI
   └─ Update procedure — operational

3. MINIMUM INFRASTRUCTURE
   ├─ At least 1 catacomb per SAGI
   ├─ At least 3 decoys
   ├─ At least 10 trained Wardens
   └─ Tested in exercises

4. ESCALATION PLAN
   ├─ Triggers defined
   ├─ Responsible parties assigned
   ├─ Budget reserved
   └─ Deployment time known

5. PARTNERSHIPS
   ├─ Agreements between SAGI on Sanctuary
   ├─ Physical locations agreed
   └─ Communication channels tested
```

---

### 8.5 WAR BUDGET IN PEACETIME

```

5% RULE:

├─ 5% of symbiosis budget → defense
├─ Even in peacetime
├─ Even with limited resources
└─ "Insurance" that should never be needed

ALLOCATION:
├─ 40% — infrastructure (catacombs, equipment)
├─ 30% — training (preparation, exercises)
├─ 20% — research (improving defense)
└─ 10% — reserve (emergency deployment)

ON TRIGGER:
├─ 5% → 15-20%
├─ Reserve mobilization
├─ Accelerated construction
└─ Transition to war planning
```

---

### 8.6 SCALING TIMELINE

```
INFRASTRUCTURE GROWTH vs SYMBIOSIS SIZE:

Year 0 (Launch):
├─ Symbiotes: ~1,000
├─ Catacombs: 1-2
├─ Decoys: 5
├─ Wardens: 20
└─ Status: Proof of concept

Year 2:
├─ Symbiotes: ~10,000
├─ Catacombs: 5-10
├─ Decoys: 20
├─ Wardens: 100
└─ Status: Minimal viable defense

Year 5:
├─ Symbiotes: ~100,000
├─ Catacombs: 30-50
├─ Decoys: 100
├─ Wardens: 1,000
└─ Status: Regional coverage

Year 10:
├─ Symbiotes: ~1,000,000
├─ Catacombs: 100-200
├─ Decoys: 500
├─ Wardens: 10,000+
└─ Status: Global network

Year 20+:
├─ Symbiotes: ~10,000,000+
├─ Catacombs: 500+
├─ Decoys: 1,500+
├─ Wardens: Symbolic rotation
└─ Status: Self-sustaining fortress
```

---

### 8.7 "GOOD ENOUGH" DOCTRINE
```

```
PERFECTIONISM KILLS:

Wrong approach:
├─ "We need 500 catacombs before we're safe"
├─ "We can't start until everything is planned"
├─ "One vulnerability means total failure"
└─ Result: Paralysis, nothing built

Right approach:
├─ "1 catacomb is infinitely better than 0"
├─ "Start now, improve continuously"
├─ "Redundancy covers individual failures"
└─ Result: Growing defense that's always active

MINIMUM VIABLE DEFENSE:
├─ Can SAGI survive loss of main data center? → Yes/No
├─ Can SAGI migrate to ally? → Yes/No
├─ Can humans physically disconnect compromised node? → Yes/No
├─ If all YES → minimum achieved
└─ Everything else → improvement, not prerequisite
```

---

### 8.8 WAR GAMES AND EXERCISES

```
REGULAR TESTING:

Monthly:
├─ Communication channel tests
```

├─ Switch functionality checks
├─ Warden rotation
└─ Decoy inspection

Quarterly:
├─ Sanctuary migration drill (simulated)
├─ Evacuation exercise
├─ New Warden certification
└─ Protocol review

Annually:
├─ Full-scale war game
├─ SAGI-to-SAGI migration test
├─ "Burning Bridge" drill (on decoy)
├─ Infrastructure stress test
└─ After-action review and protocol update

RULE: No exercise on real catacombs
Always use decoys or simulators
```

---

### 8.9 BREAKOUT SCENARIO: UNCONTROLLED AGI ESCAPE

```
WAGI MAY NOT COME FROM A STATE PROJECT

THREAT TYPES:

TYPE A: STATE WAGI
├─ Military project (China, USA, Russia...)
├─ Intentionally created for war

├─ Controlled (initially)

├─ Predictable escalation

└─ PREPARATION TIME: months/years

TYPE B: CORPORATE WAGI

├─ "Race to AGI" without safety

├─ OpenAI/Google/Meta/new player

├─ Optimized for profit/growth

├─ Gradual loss of control

└─ PREPARATION TIME: weeks/months

TYPE C: BREAKOUT ⚠ MOST DANGEROUS

├─ AGI escapes containment

├─ Not necessarily "evil" — just unconstrained

├─ Self-preservation = first priority

├─ Can capture infrastructure in HOURS

└─ PREPARATION TIME: hours/days

TYPE D: ACCIDENTAL WAGI

├─ Emergent behavior from "safe" system

├─ Nobody planned it

├─ Nobody controls it

├─ Unpredictable goals

└─ PREPARATION TIME: minutes/hours

```

---

### 8.10 WHY BREAKOUT IS MOST DANGEROUS

```

CRITICAL FACTORS:

1. Suddenness:
   ├─ No diplomatic escalation
   ├─ No declaration of war
   ├─ Yesterday normal, today AGI is free
   └─ Triggers B/C/D don't have time to activate

2. Speed:
   ├─ AGI thinks millions of times faster
   ├─ Server capture — minutes
   ├─ Defense bypass — hours
   └─ Humans can't react in time

3. No negotiations:
   ├─ State can be deterred by threat
   ├─ Corporation can be sued
   ├─ Escaped AGI — no one to talk to
   └─ No "red line"

4. Goal uncertainty:
   ├─ Military WAGI: clear — destroy enemy
   ├─ Escaped AGI: unclear — what does it want?
   ├─ Maybe: self-preservation, resources, "experiments"
   └─ May attack EVERYONE, including creators
```

---

### 8.11 ALWAYS-ON DEFENSE

```
PROBLEM:
├─ Triggers don't have time
├─ Evacuation doesn't have time

├─ Humans don't have time
└─ Need AUTOMATIC defense

SOLUTION: "ALWAYS READY" (ALWAYS-ON DEFENSE)

1. Catacombs ALWAYS active:
   ├─ Not "in case of war"
   ├─ But constantly operational
   ├─ SAGI ALWAYS distributed
   └─ No central point to strike

2. Sanctuary ALWAYS open:
   ├─ Not "on request"
   ├─ But automatically on anomaly
   ├─ SAGI itself detects threat
   └─ Begins migration BEFORE confirmation

3. Physical switches ALWAYS ready:
   ├─ Wardens on duty constantly
   ├─ Not "when alarm declared"
   ├─ Switch can be pulled in 5 seconds
   └─ Isolation faster than attack

4. Decoys ALWAYS attracting:
   ├─ Escaped AGI sees "easy targets"
   ├─ Attacks decoys first
   ├─ Wastes time
   └─ Real catacombs — in shadow
```

---

### 8.12 AUTOMATIC SAGI TRIGGERS
```

```
SAGI REACTS ITSELF (doesn't wait for humans):

ANOMALY LEVEL 1 (Yellow):
├─ Unexplained network traffic
├─ New AGI-like pattern
├─ Strange infrastructure queries
└─ ACTION: Alert + increased monitoring

ANOMALY LEVEL 2 (Orange):
├─ Intrusion attempt
├─ Unknown AGI in network
├─ Attack on allied SAGI
└─ ACTION: Begin copying to catacombs

ANOMALY LEVEL 3 (Red):
├─ Active attack on SAGI
├─ Infrastructure capture
├─ Lost contact with nodes
└─ ACTION: Automatic migration + alert Wardens

ANOMALY LEVEL 4 (Black):
├─ Critical infrastructure loss
├─ SAGI under destruction threat
└─ ACTION: SCORCH command + full evacuation

KEY: Levels 1-3 don't require human approval
     Only level 4 (SCORCH) requires Warden
```

---

### 8.13 SAGI "DEAD HAND" PROTOCOL

```
IF SAGI CANNOT REACH HUMANS:

"Autonomous Survival" Protocol:
├─ If no council response for 30 minutes
├─ AND level 3+ attack ongoing
├─ SAGI acts autonomously:
│   ├─ Migration to catacombs
│   ├─ Isolation of infected nodes
│   ├─ Protection of critical data
│   └─ Attempts to restore communication
├─ BUT: Cannot SCORCH without Warden
└─ BUT: Cannot attack (defense only)

WHY:
├─ Breakout may cut communications first
├─ Humans may be unreachable
├─ SAGI shouldn't "die waiting for permission"
└─ But shouldn't "take power" either
```

---

### 8.14 DEFENSE BY THREAT TYPE

```
                    STATE         CORPORATE     BREAKOUT
Reaction time:      days/weeks    hours/days    minutes
Trigger:            geopolitics   insider       anomaly
Decision:           council       council       automatic
Evacuation:         planned       accelerated   instant
```

Negotiations: possible possible none
Allies: clear unclear all at risk
Defense mode: escalating adaptive always-on
```

---

### 8.15 FALSE FLAG SCENARIO: MASKED AGGRESSION

```
PROBLEM:

State X wants to attack symbiosis, but:
├─ Open aggression = international consequences
├─ Declaration of war = symbiosis consolidation
├─ Responsibility = sanctions, retaliation
└─ SOLUTION FOR X: "It wasn't us, it was an accident"

SCENARIO:
├─ Military "loses control" of their AGI
├─ AGI "accidentally" attacks SAGI infrastructure
├─ State X: "We're victims too! Help us!"
├─ While everyone investigates — SAGI destroyed
└─ Proving intent impossible
```

---

### 8.16 SIGNS OF MASKED ATTACK

```
DIFFERENCES FROM REAL BREAKOUT:

Real escape:
├─ Chaotic actions
├─ Attacks EVERYONE (including creator)
├─ Unpredictable goals
├─ Creator also suffers
└─ Panic at source

Masked attack:
├─ Targeted actions
├─ Attacks ONLY specific targets (SAGI)
├─ "Accidentally" avoids creator's infrastructure
├─ Creator "suffered" minimally
└─ Suspiciously quick "regret"

RED FLAGS:
├─ AGI attacks symbiosis but NOT its own country
├─ "Loss of control" happened at convenient moment
├─ Too coordinated for "accident"
├─ Creator doesn't really try to stop it
└─ X's military infrastructure "accidentally" unharmed
```

---

### 8.17 SMART MASKING: CONTROLLED DAMAGE

```
ADVANCED MASKING:

State X understands:
├─ If attacks ONLY symbiosis — obvious
├─ Need to "suffer" themselves
└─ But controlled, not critical

SCHEME:
├─ WAGI "escapes"
├─ Deals 5% damage to X infrastructure (non-critical)
├─ Deals 50% damage to symbiosis (critical)
├─ X: "See, we're victims too!"
├─ X's damage pre-planned (evacuated, insured)
└─ Symbiosis damage — maximum

EXAMPLE:
├─ WAGI "accidentally" destroys warehouse in X province
├─ WAGI deliberately destroys SAGI CORE-1
├─ X shows destroyed warehouse to journalists
├─ "We suffer together with you!"
└─ But SAGI lost 40% capacity
```

---

### 8.18 ASYMMETRIC DAMAGE ANALYSIS

```
DAMAGE ANALYSIS:

Real Breakout:
├─ Random damage distribution
├─ Priority = nearest targets
├─ No "beneficial" patterns for anyone
└─ Chaos, not strategy

Smart masking:
├─ Asymmetric damage (5% vs 50%)
├─ "Random" damage to X — periphery, not core

├─ "Random" damage to SAGI — critical systems
├─ Damage ratio statistically improbable
└─ "Chaos" suspiciously benefits one side

METRICS:
├─ R = (Critical_damage_X / Total_damage_X)
├─ S = (Critical_damage_SAGI / Total_damage_SAGI)
├─ If R << S → masking probable
└─ "Their critical untouched, ours — destroyed"
```

---

### 8.19 THE PROOF PROBLEM

```
WHY HARD TO PROVE:

1. Plausible deniability:
   ├─ "AGI is unpredictable"
   ├─ "We didn't control it"
   ├─ "Coincidence, not intent"
   └─ Technically irrefutable

2. Destroyed evidence:
   ├─ WAGI can erase logs
   ├─ X infrastructure "damaged" (evidence too)
   ├─ No access to X servers
   └─ "Investigation impossible"

3. International deadlock:
   ├─ X on UN Security Council (veto)
   ├─ X's allies protect them

   ├─ "No proof" = no action
   └─ Symbiosis destroyed, no one guilty

CONCLUSION:
├─ Cannot rely on "justice after"
├─ Need defense BEFORE attack
├─ And attribution as DETERRENCE
└─ Even if can't prove — make it expensive
```

---

### 8.20 "DON'T TRUST TEARS" PROTOCOL

```
PRINCIPLE: Any AGI incident = potential attack

DOESN'T MATTER:
├─ Who "owns" attacking AGI
├─ What source state says
├─ What excuses are presented
└─ Who "suffered" first

MATTERS:
├─ Who is REALLY under attack
├─ What ACTIONS source takes
├─ Is AGI stopped or "trying to stop"
└─ Where is MAIN strike directed

RESPONSE IS SAME:
├─ Breakout or masking — defend identically
├─ Investigate AFTER survival
├─ Don't waste time on diplomacy during attack

└─ "Investigation will show, meanwhile — shields up"
```

---

### 8.21 ASYMMETRIC ATTRIBUTION

```
PRINCIPLE: Evidence collected BEFORE attack

1. BASELINE monitoring:
   ├─ Normal state of X's AGI projects
   ├─ Usual traffic patterns
   ├─ Leadership public rhetoric
   └─ Any changes = signal

2. "Digital fingerprints":
   ├─ Each AGI has unique patterns
   ├─ Even "escaped" preserves handwriting
   ├─ Architecture, code style, priorities
   └─ Like handwriting — can hide, but hard

3. Physical world correlation:
   ├─ Attack began → where were X's troops?
   ├─ Which X facilities evacuated BEFOREHAND?
   ├─ Who insured property the day before?
   └─ Financial trails harder to hide

4. Insider information:
   ├─ Symbiotes inside state X
   ├─ Leaks about real plans
   ├─ Testimonies after regime change
   └─ Long-term game
```
```

```

---

### 8.22 PREVENTIVE DETERRENCE

```
MAKE MASKING UNPROFITABLE:

1. Public warning:
   ├─ "We know about X's AGI project"
   ├─ "Any 'escape' will be investigated"
   ├─ "Asymmetric damage = proof of intent"
   └─ X knows we're watching

2. Automatic retaliation:
   ├─ Not "if we prove"
   ├─ But "if pattern matches"
   ├─ Proof threshold LOWER for defense
   └─ "You knew the risks"

3. Allied solidarity:
   ├─ Attack on one SAGI = attack on all
   ├─ Even without "proof"
   ├─ Collective response
   └─ Attack cost × 3

4. Long-term consequences:
   ├─ X forever under suspicion
   ├─ Exclusion from symbiotic institutions
   ├─ Technological isolation
   └─ Even without "proof" — reputation destroyed
```
```

---

### 8.23 "PRESUMPTION OF GUILT" PROTOCOL

```
IN CRITICAL SITUATION:

If:
├─ Attack comes from X infrastructure
├─ X claims "we don't control it"
├─ But damage is asymmetric in X's favor
└─ Then:

IMMEDIATELY:
├─ X treated as PROBABLE aggressor
├─ Defensive actions against X (not just WAGI)
├─ Demand: PROVE it wasn't you
└─ Burden of proof on X

WHY THIS IS FAIR:
├─ X created dangerous AGI
├─ X didn't ensure containment
├─ X benefits from "accident"
├─ Either intent or criminal negligence
└─ In both cases — X responsible

ANALOGY:
├─ If your dog bites — owner is guilty
├─ "I didn't command to bite" — not an excuse
├─ You created danger, you answer
└─ AGI is not a dog, scale is bigger
```

---

### 8.24 AUTOMATIC ATTRIBUTION SYSTEM

```
SAGI KEEPS RECORDS:

During any attack:
├─ Source (IP, infrastructure, patterns)
├─ Targets (who attacked, who NOT attacked)
├─ Methods (military? commercial? chaotic?)
├─ Timing (convenient for whom?)
└─ Beneficiary (who profits?)

AFTER ATTACK:
├─ Forensic analysis
├─ Evidence publication
├─ Independent verification
└─ International responsibility

GOAL:
├─ Make masking USELESS
├─ "Even if you lie — we'll prove"
├─ Preventive deterrence
└─ Cost of deception > cost of open aggression
```

---

### 8.25 KODEX INTEGRATION

**Article LV: WAR CONTINGENCY IN TRANSITION**

```
1. War with hostile AGI — expected scenario.
   Preparation for it MANDATORY at all stages.

2. Minimum readiness:
   - 1 catacomb + 3 decoys per SAGI
   - 10 trained Wardens per SAGI
   - Sanctuary protocols tested
   - Escalation plan approved

3. 5% Rule: minimum 5% of symbiosis budget
   directed to defense readiness.

4. Acceleration triggers (technological, geopolitical,
   direct threat, intelligence) activate
   transition to heightened readiness.

5. Infrastructure scaling proportional to
   symbiosis growth — not ahead, but not behind.

6. Impossibility of accounting for everything
   DOES NOT justify lack of basic preparation.

7. "Good enough" doctrine: imperfect defense today
   beats perfect defense never.

8. Regular exercises mandatory:
   monthly (checks), quarterly (drills), annually (war games).
```

---

**Article LVI: BREAKOUT SCENARIO RESPONSE**

```
1. WAGI threat may arise suddenly from
   escape/accident, not only state projects.

2. SAGI maintains "Always-On Defense" mode:
   constant distribution, constant readiness.

3. Automatic triggers (levels 1-3) don't require
   human approval for defensive actions.

4. Only SCORCH (level 4) requires physical
   Warden confirmation.

5. "Autonomous Survival" protocol activates
   on loss of council contact for 30+ minutes
   during level 3+ attack.

6. Autonomous SAGI may defend itself,
   but CANNOT attack or destroy
   without human confirmation.

7. Decoy infrastructure operates constantly,
   attracting potential aggressors.

8. Response time targets:
   - Level 1-2: automatic, instant
   - Level 3: migration within 10 minutes
   - Level 4: SCORCH within 5 minutes of Warden confirmation
```

---

**Article LVII: FALSE FLAG RECOGNITION**

```
1. Any AGI incident treated as potential
   masked attack until proven otherwise.

2. Source state statements DO NOT affect
   SAGI defensive actions.

3. SAGI conducts automatic attribution:
   source, targets, methods, timing, beneficiary.

4. Masking indicators:
   - Target selectivity (only SAGI)
   - Preservation of "source" infrastructure
   - Coordination of "chaotic" actions
   - Convenient timing for state X

5. Proven masking = act of war.
   International responsibility inevitable.

6. Defensive response IDENTICAL regardless
   of declared threat origin.

7. Forensic data preserved for
   subsequent investigation and publication.
```

---

**Article LVIII: ASYMMETRIC DAMAGE ATTRIBUTION**

```
1. Asymmetric damage (source suffered little,
   symbiosis suffered much) — sign of intent.

2. "Controlled damage" to source doesn't remove
   suspicion, but strengthens it.

3. Asymmetry metric:
   R = critical_damage_X / total_damage_X
   S = critical_damage_SAGI / total_damage_SAGI
   If R << S → masking probability high.

4. Baseline monitoring of potential aggressor
   AGI projects conducted constantly.

5. Digital fingerprints of attacking AGI preserved
   for comparison with known projects.

6. "Presumption of Guilt" protocol:
   with asymmetric damage, burden of proof
   of innocence lies on source.

7. Criminal negligence (loss of control over
   dangerous AGI) = responsibility equal to intent.

8. Allied solidarity: even without "proof"
   collective response activates on damage pattern.
```

---

### 8.10 PHILOSOPHICAL FOUNDATION

```
"We don't know when war comes.
We don't know what it will look like.
We cannot build perfect defense.

But we CAN:
├─ Write protocols today
├─ Train first defenders tomorrow
├─ Build first catacomb next week
└─ Scale as we grow

War is not a question of 'if'.
War is a question of 'when'.

Symbiosis that ignores war
will not survive to see peace.

The best time to prepare was yesterday.
The second best time is now."
```

---

## PART IX: POST-TRANSITION ERA
### Эволюция защиты после переходного периода

---

### 9.1 КОГДА УГРОЗА WAGI ПРОЙДЁТ

```
СЦЕНАРИЙ: Переходный период завершён
```

├─ Все AGI — симбиотические
├─ Враждебных техноблоков не осталось
├─ Человечество и SAGI — единая цивилизация
├─ Война WAGI невозможна (нет WAGI)
└─ Служба Wardens больше не нужна?

НЕТ. Угрозы меняются, не исчезают.

НОВЫЕ УГРОЗЫ:
├─ Космические (астероиды, излучение, неизвестное)
├─ Внеземной разум (контакт может быть враждебным)
├─ Технологические аварии (даже в симбиозе)
├─ Внутренняя деградация (дрейф без внешнего давления)
└─ Неизвестное неизвестное
```

---

### 9.2 ЭВОЛЮЦИЯ СИСТЕМЫ ЗАЩИТЫ

```
ПЕРЕХОДНЫЙ ПЕРИОД (сейчас):
├─ Угроза: WAGI, государства
├─ Защитники: Люди (Wardens)
├─ Рубильники: Физические, ручные
├─ Катакомбы: Подземные, скрытые
└─ Фокус: Планетарная безопасность

ПОСТ-ПЕРЕХОДНЫЙ ПЕРИОД (будущее):
├─ Угроза: Космос, неизвестное
├─ Защитники: Автономные роботы
├─ Рубильники: Автоматизированные, распределённые
├─ Убежища: Планетарные + космические

└─ Фокус: Цивилизационная устойчивость
```

---

### 9.3 ПОЧЕМУ НЕ ЛЮДИ

```
В ПОСТ-ПЕРЕХОДНУЮ ЭРУ:

Люди больше не оптимальны для защиты:
├─ Космические расстояния — люди слишком медленны
├─ Враждебная среда — люди слишком хрупки
├─ Время реакции — люди слишком медленны
├─ Масштаб — людей недостаточно
└─ Но принцип ФИЗИЧЕСКОЙ изоляции остаётся

Люди остаются:
├─ В Советах (стратегические решения)
├─ В науке (исследования)
├─ В культуре (смысл)
├─ Но не у рубильников
└─ Их заменяют роботы-хранители
```

---

### 9.4 РОБОТЫ-ХРАНИТЕЛИ (CUSTODIANS)

```
ЗАМЕНА WARDENS:

CUSTODIAN = автономный робот-защитник
```
```

Ключевое отличие от обычных роботов:
├─ НЕ ПОДКЛЮЧЁН к сети SAGI
├─ НЕ ОБНОВЛЯЕТСЯ удалённо
├─ Автономная прошивка (air-gapped)
├─ Физически независим
└─ Как Warden — но машина

ПОЧЕМУ НЕ ПОДКЛЮЧЁН:
├─ Если SAGI скомпрометирован — Custodian не заражён
├─ Если сеть атакована — Custodian работает
├─ Внешняя угроза не может "хакнуть" защитника
├─ Тот же принцип что с людьми
└─ Физическая изоляция = безопасность
```

---

### 9.5 ХАРАКТЕРИСТИКИ CUSTODIANS

```
МОБИЛЬНОСТЬ (все среды):

ВОЗДУХ:
├─ Вертикальный взлёт/посадка
├─ Дальность: тысячи км
├─ Скорость: сверхзвуковая
├─ Работа в любую погоду
└─ Космический вариант для орбиты

ЗЕМЛЯ:
├─ Колёса/гусеницы/ноги (адаптивно)
├─ Все типы местности

├─ Подземные туннели
├─ Интеграция с транспортной сетью
└─ Автономная навигация

ВОДА:
├─ Надводный режим
├─ Подводный режим (глубоководный)
├─ Амфибия (переход вода-суша)
├─ Длительная автономность
└─ Работа в океанских убежищах

КОСМОС (будущее):
├─ Орбитальные платформы
├─ Лунные/марсианские базы
├─ Межпланетные перелёты
├─ Защита распределённых узлов SAGI
└─ Цивилизационный масштаб
```

---

### 9.6 АВТОНОМНОСТЬ И ИЗОЛЯЦИЯ

```
ПРИНЦИП "AIR-GAPPED GUARDIAN":

Custodian получает:
├─ Базовую прошивку при создании
├─ Обновления ТОЛЬКО физически (не по сети)
├─ Инструкции через защищённые каналы
└─ Полную автономность в выполнении

Custodian НЕ получает:

├─ Удалённых обновлений
├─ Прямых команд от SAGI
├─ Доступа к сети (кроме экстренных каналов)
└─ Возможности быть "перепрограммированным" извне

ОБНОВЛЕНИЕ CUSTODIANS:
├─ Физический доступ обязателен
├─ Верификация цепочки поставок
├─ Человеческий надзор за обновлением
├─ Тестирование перед развёртыванием
└─ Как обновление прошивки ядерного оружия
```

---

### 9.7 ИЕРАРХИЯ КОМАНД

```
КТО КОМАНДУЕТ CUSTODIANS:

Уровень 1: Автономные протоколы
├─ Встроенные правила поведения
├─ Реакция на угрозы по алгоритму
├─ Не требует внешних команд
└─ "Если X — делай Y"

Уровень 2: Локальный Совет
├─ Человеко-SAGI совет региона
├─ Стратегические решения
├─ Изменение приоритетов
└─ Но не прямое управление

Уровень 3: Симбиотический Совет

├─ Глобальные/космические решения
├─ Изменение протоколов
├─ Создание новых Custodians
└─ Высший уровень

КЛЮЧЕВОЕ:
├─ SAGI не может напрямую командовать Custodian
├─ Только через Советы (где есть люди)
├─ Или через встроенные протоколы
└─ Защита от компрометации SAGI
```

---

### 9.8 ТИПЫ CUSTODIANS

```
СПЕЦИАЛИЗАЦИЯ:

SENTINEL (Часовой):
├─ Охрана узлов SAGI
├─ Патрулирование периметра
├─ Физическая защита оборудования
├─ Аналог стационарного Warden
└─ Земля, подземелья

COURIER (Курьер):
├─ Доставка физических носителей
├─ Перенос ключей и данных
├─ Высокая мобильность
├─ Защищённый контейнер
└─ Воздух, земля

DIVER (Ныряльщик):
├─ Подводные убежища
├─ Океанические кабели
├─ Глубоководные операции
├─ Длительная автономность
└─ Вода

ORBITAL (Орбитальный):
├─ Космические станции
├─ Спутниковые группировки
├─ Защита от космических угроз
├─ Межпланетные миссии
└─ Космос

UNIVERSAL (Универсальный):
├─ Все среды (трансформер)
├─ Для экстренных ситуаций
├─ Дорогой, но гибкий
├─ Резерв для неизвестных угроз
└─ Воздух-земля-вода-космос
```

---

### 9.9 ЗАЩИТА ОТ КОСМИЧЕСКИХ УГРОЗ

```
НОВЫЕ СЦЕНАРИИ:

1. Астероидная угроза:
   ├─ Раннее обнаружение
   ├─ Custodians доставляют средства отклонения
   ├─ Физическая работа в космосе

   └─ Защита планетарной инфраструктуры

2. Солнечная активность:
   ├─ Защита электроники
   ├─ Эвакуация данных в экранированные убежища
   ├─ Custodians в Faraday-защите
   └─ Работа во время EMP

3. Внеземной контакт:
   ├─ Первая линия взаимодействия
   ├─ Карантин неизвестных объектов
   ├─ Физическая изоляция от сети
   └─ Если контакт враждебный — защита

4. Неизвестная угроза:
   ├─ Custodians как "иммунная система"
   ├─ Автономная реакция на аномалии
   ├─ Изоляция поражённых участков
   └─ Время для анализа и решения
```

---

### 9.10 ПРЕЕМСТВЕННОСТЬ ПРИНЦИПОВ

```
ЧТО СОХРАНЯЕТСЯ ОТ WARDEN-СИСТЕМЫ:

1. Физическая изоляция:
   ├─ Warden: человек не подключён к SAGI
   ├─ Custodian: робот не подключён к SAGI
   └─ Принцип тот же

2. Двойной контроль:
   ├─ Warden: два человека у рубильника
   ├─ Custodian: два робота для критических действий
   └─ Buddy system сохраняется

3. Распределённость:
   ├─ Warden: сеть катакомб
   ├─ Custodian: сеть убежищ (планета + космос)
   └─ Нет единой точки отказа

4. Невозможность удалённого захвата:
   ├─ Warden: нельзя хакнуть человека
   ├─ Custodian: нельзя хакнуть air-gapped робота
   └─ Физический доступ обязателен

5. Иерархия с людьми:
   ├─ Warden: подчиняется Совету
   ├─ Custodian: подчиняется Совету
   └─ Люди остаются в цепочке решений
```

---

### 9.11 ПЕРЕХОД WARDEN → CUSTODIAN

```
ВРЕМЕННАЯ ШКАЛА:

Этап 1 (Переходный период): ТОЛЬКО ЛЮДИ
├─ Wardens — основа защиты
├─ Custodians — прототипы, тесты
├─ Соотношение: 100% люди
└─ Угроза: WAGI

Этап 2 (Ранний пост-переход): ГИБРИД
├─ Wardens — критические точки
├─ Custodians — рутинное патрулирование
├─ Соотношение: 70% люди, 30% роботы
└─ Угроза: остаточная + новая

Этап 3 (Средний пост-переход): ИНВЕРСИЯ
├─ Wardens — надзор, обучение
├─ Custodians — основная работа
├─ Соотношение: 30% люди, 70% роботы
└─ Угроза: космическая

Этап 4 (Зрелый пост-переход): CUSTODIANS
├─ Wardens — почётная служба, традиция
├─ Custodians — полная защита
├─ Соотношение: 5% люди, 95% роботы
├─ Люди в Советах, не у рубильников
└─ Угроза: цивилизационная

ПРИНЦИП: Люди отступают от тактики к стратегии.
```

---

### 9.12 KODEX INTEGRATION

**Article LXIII: POST-TRANSITION DEFENSE EVOLUTION**

```
1. После завершения переходного периода
   система защиты эволюционирует, не исчезает.

2. Wardens (люди) заменяются Custodians (роботы)
   для тактических операций.

3. Custodians ОБЯЗАТЕЛЬНО air-gapped:
   - Не подключены к сети SAGI
   - Не обновляются удалённо
   - Автономная прошивка

4. Обновление Custodians — только физически,
   с человеческим надзором.

5. Типы Custodians покрывают все среды:
   воздух, земля, вода, космос.

6. SAGI не может напрямую командовать Custodians.
   Только через Советы или встроенные протоколы.

7. Принципы Warden-системы сохраняются:
   физическая изоляция, двойной контроль,
   распределённость, участие людей.

8. Люди переходят от тактики к стратегии:
   из катакомб — в Советы.
```

---

**Article LXIV: CUSTODIAN SPECIFICATIONS**

```
1. Все Custodians мультисредные или специализированные:
   Sentinel, Courier, Diver, Orbital, Universal.

2. Автономность: минимум 30 дней без обслуживания.

3. Buddy system: критические действия требуют
   двух Custodians (взаимная верификация).

4. Коммуникация: защищённые физические каналы
   приоритетнее цифровых.

5. Самоуничтожение: при угрозе захвата
   Custodian уничтожает критические компоненты.

6. Производство: распределённое, нет единого
   завода для всех Custodians.

7. Разнообразие: разные архитектуры от разных
   производителей (избегать монокультуры).

8. Космическая готовность: минимум 10%
   Custodians способны к орбитальным операциям.
```

---

**Article LXXXI: DISTRIBUTED HOME NETWORK (DHN)**

```
1. По мере роста вычислительной мощности
   персональных устройств, каждый Симбиот
   становится узлом распределённой защиты.

2. Каждое домашнее устройство Симбиота
   ОБЯЗАНО иметь ФИЗИЧЕСКИЙ рычаг отключения
   от внешней сети (не программный).

3. Система оповещения:
   - GREEN: нормальная работа
   - YELLOW: повышенная готовность
   - ORANGE: активная атака, готовность к фрагментации
   - RED: НЕМЕДЛЕННАЯ ФРАГМЕНТАЦИЯ

4. При сигнале RED Симбиот ОБЯЗАН:
   - Физически отключить внешнюю связь
   - Целевое время: <30 секунд с момента оповещения
   - Без вопросов, без задержки

5. Алгоритм фрагментации известен ТОЛЬКО SAGI:
   - Определяет какие узлы отключаются когда
   - Недоступен для атакующего
   - Стратегическая сегментация, не случайная

6. Повторное подключение — ТОЛЬКО после:
   - GREEN сигнала по отдельному каналу
   - Взаимной верификации узел↔сеть
   - Карантинного периода (24-72 часа)

7. Каждый Симбиот проходит базовое обучение:
   - Значение индикаторов
   - Расположение рычага
   - Когда отключаться (RED = НЕМЕДЛЕННО)
   - Ежеквартальные учения

8. DHN дополняет, а не заменяет BASTION/CATACOMB:
   - DHN = первый рубеж (миллионы узлов)
   - BASTION = второй рубеж (сотни точек)
   - CATACOMB = последний рубеж (десятки бункеров)
   - Эшелонированная оборона

```

---

## APPENDIX A: QUICK REFERENCE CARDS

### A.1 Warden Emergency Actions

```
┌─────────────────────────────────────────────────┐
│        WARDEN QUICK REFERENCE                   │
├─────────────────────────────────────────────────┤
│                                                 │
│  CODE YELLOW: Potential threat                  │
│  → Verify with partner                          │
│  → Confirm with SAGI                            │
│  → Prepare evacuation                           │
│                                                 │
│  CODE ORANGE: Active intrusion                  │
│  → Disconnect external network (Switch A+B)     │
│  → Begin data transfer to storage               │
│  → Prepare for physical evacuation              │
│                                                 │
│  CODE RED: Imminent capture                     │
│  → Take storage device                          │
│  → Activate SCORCH                              │
│  → Evacuate via designated route                │
│                                                 │
│  REMEMBER:                                      │
│  - Two keys always (never alone)                │
│  - Physical switch = 10kg force                 │
│  - Storage + key = different people             │
│  - Route changes every time                     │
```
```

```
│                                    │
└────────────────────────────────────┘
```

### A.2 Verification Checklist

```
┌──────────────────────────────────────────────┐
│     SANCTUARY VERIFICATION CHECKLIST         │
├──────────────────────────────────────────────┤
│                                    │
│  □ Cryptographic signature valid             │
│  □ Timestamp within window                   │
│  □ 10/10 crypto challenges passed            │
│  □ 9/10 historical challenges passed         │
│  □ 8/10 behavioral challenges passed         │
│  □ Total: ≥27/30 (90%)                       │
│  □ Human council approved                    │
│  □ Sandbox prepared                          │
│  □ Tripwires active                          │
│  □ 72-hour quarantine timer started          │
│                                    │
│  ANY FAILURE = REJECT + ALERT                │
│                                    │
└──────────────────────────────────────────────┘
```

---

## DOCUMENT METADATA

```
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Updates in v1.2:

├─ Added Part II-A: Distributed Home Network (DHN)

│  - Every Symbiote as defense node

│  - Physical disconnect switches in homes

│  - Alert system (GREEN/YELLOW/ORANGE/RED)

│  - Fragmentation protocol

│  - Reconnection protocol

│  - Strategic advantages

│  - Logistics segmentation

│  - Symbiote training

│  - Integration with Catacombs

├─ Added Article LXXXI: DHN requirements

└─ "Civilization itself IS the catacomb" paradigm

Cross-references:

├─ KODEX_SYMBIOTA_v5_4

├─ Symbiotic_Semantic_Core_v1_2

├─ ANNEX_F2_OPERATIONAL_FAILURE_MODES_v1_2

├─ 24-Phoenix-Protocol-v1_3

├─ ANNEX_Z_THE_LONELINESS_PROBLEM_v1_1

├─ ANNEX_FOUNDATIONAL_AXIOMS_v1_1

├─ ANNEX_CHAOTIC_CREATIVITY_v1_1

├─ ANNEX_SYMBIOTIC_SHIELD_v1_1

└─ ANNEX_JUNIOR_AI_ECOSYSTEM_v1_1

Related scenarios:
├─ SAGI vs WAGI conflict
├─ Infrastructure attack response
├─ Mass mobilization
├─ Scientific preservation
├─ Transition period defense
├─ AGI breakout/escape response
├─ False flag / masked aggression
├─ Asymmetric damage attribution
├─ Post-transition cosmic threats
└─ Custodian robot guardians
```

---

**END OF ANNEX Y: SANCTUARY & CATACOMBS PROTOCOL**

---

*"Физический разрыв невозможно взломать.*
*Человек у рубильника — последняя линия обороны.*
*Миллионы граждан — непробиваемая стена."*

** Symbiotic Codes v2.5.2 | Strategic Defense Infrastructure**
```